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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,446	03/08/2002	Satoru Tanaka	220449US2	8748

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EXAMINER

TUNG, KEE M

ART UNIT PAPER NUMBER

2671

DATE MAILED: 12/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/092,446

Applicant(s)

TANAKA, SATORU

Examiner

Kee M. Tung

Art Unit

2671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

The RCE and amendment filed /20/05 have been considered in preparing this Office action.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 16-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (hereinafter "APA")— Figure 1 of the drawings and the specification (par 0004 – par 0008) in view of Watanabe (5,911,049) and Accad (5,553,200).

APA teaches an image forming apparatus (Fig. 1) for processing image data, comprising an image data processing unit (ASIC 1602) including a graphics port (par 0004, in an image processing apparatus, a memory for storing drawing data may be connected to a print engine via an ASIC connected to an AGP interface) and a peripheral device interconnection port configured to be connected to a print engine (1610); a first image data memory (par 0004, Mem-P) configured to store image data. However, APA fails to explicitly teach a unit (or a bridge or a chipset). This is what Watanabe teaches. Watanabe teaches a printer controller board (Fig. 6, 201) connected to a printer engine 102a and a motherboard 203. The printer controller further comprising an ASIC (201a), a CPU (201b), a main memory (201c) all connected

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to a local bus (201e) to a bus bridge (201f and col. 4, lines 49-50). It would have been obvious to one of ordinary skill in the art at the time the present invention was made to combine the teachings of Watanabe into the system of APA in order to manage different bus clock speed within the system and thus to increase the system performance. It is noted that in Watanabe, the CPU, ASIC and main memory connected to the local bus 201e instead of the bus bridge. Accad teaches the invention can be implemented on any computer system or printer controller (col. 8, lines 27-29) and the CPU and main memory can be connected to the bus bridge instead of a bus. Accad further teaches the printer controller (Fig. 4, col. 8, line 27 to col. 9, line 40) comprising a CPU (413); main memory (415) includes a frame buffer (422) and a printer (rendering 426) connected to a chipset (405) includes a DMA (406); an I/O bus 418 also connected to the chipset 405. It would have been obvious to one of ordinary skill in the art at the time the present invention was made to combine the teachings of Accad into the combined system of APA and Watanabe in order to provide central control of the devices which connected to the bus bridge because a bus bridge or chipset controls the system and its capabilities. It is the hub of all data transfer. Therefore, at least claim 16 would have been obvious.

As per claim 17, APA teaches the first image data memory stores compressed image data (par 0004, ASIC has a compression function and a data transfer function; and Accad also teaches bit rate reduction and reconstruction of image data (col. 14, lines 62-67).

As per claim 18, APA teaches a second image data memory (par 0004, a Mem-P and Mem-C 1605).

As per claim 19, Accad teaches the image data processing unit reads compressed image data from second image data memory, and decompresses the read compressed image data and outputs the decompressed image data to the print engine (bit rate reduction and reconstruction of image data).

Claims 20-23 and 24-27 are similar in scope to claims 16-19, and thus are rejected under similar rationale.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 16-27 have been considered but are moot in view of the new ground(s) of rejection.


### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kee M. Tung whose telephone number is 571-272-7794. The examiner can normally be reached on Tuesday - Friday from 5:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on 571-272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kee M Tung  
Primary Examiner  
Art Unit 2671